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Field Notes II

Wednesday, May 28 - Blue River Face timber sale area

I'm typing this while sitting in my little red Honda at the edge of a fairly recent partial-cut unit on the ridge dividing Lookout Creek (the principal drainage of the Andrews Forest) to the east and Blue River to the west. I enjoy seeing these woods cloaked in their veil of low cloud. The sun was out earlier, but looking across Blue River to the far hillside I could see cloud tendrils lurking in the side drainages, promising rain. The whole environment here bespeaks moisture--the cushioned ground underfoot, where even the graveled logging spurs are covered in grass and moss, the dense vegetation of the cutting units, the canopy of trees covering the far hillside. For a moment I peer out through the fogging window at all this and envision the trees and ferns and moss as all consisting of water, a green intermediary between heaven and earth, modulating the flow of moisture in from the ocean, filtering it thoroughly, and delivering it to crystalline streams for the return home.

Fred J. Swanson took me up here yesterday for a quick introduction. He said that the unit directly below me was harvested pretty recently (within the last ten years) using the newer "ecosystem management" principles which now prevail in the region's national forests, particularly the Willamette. A partial cut, the unit covers perhaps 30 acres in an irregular shape. It is thickly covered with young Douglas fir, rhododendron, ferns, shrubs, and other plants. Fred especially wanted to point out the ceanothus, a nitrogen fixer, which in earlier days would have been suppressed after logging. Its seeds can remain viable for more than a century, waiting for the sunlight they need to sprout, and he suspects that these individuals came from seeds lying dormant in the soil since the last major fire 110-120 years ago.

Most striking in this unit are the tall Douglas fir which the loggers left behind. They include healthy specimens as well as a selection of dead snags. Some have burn scars reaching fifty feet up their trunks, part of a deliberate attempt to create dead snags for wildlife habitat. Some are broken off high up, reflecting the winds which must sweep this ridge. This is truly a turnabout from previous practices, when such "waste" would have been unthinkable.

The overall visual effect, in fact, is much like that of a "high grading" cut of many years ago, a relic of the Bad Old Days when loggers took out the best trees, left the less merchantable ones standing or on the ground, and often set fire to the whole mess. This was far from the Forest Service's intent with this unit, of course, and it is nothing like the cut-and-run logging that ravaged the lowland forests early in the last century. The Forest Service was created in part to bring a halt to such waste, and it succeeded to a great extent within its domain. Then, beginning in the 1950s, it introduced its own methods which were designed to optimize harvests, prepare seedbeds for replanting, and quickly grow a new crop. This involved clearcutting in regular, square-sided blocks, piling and burning slash, further burning or chemical treatment to suppress unwanted species such as alder, maple, and ceanothus, and finally, planting of nursery-raised Douglas fir seedlings selected for rapid growth.

The results of this approach can be seen to either side of this cutting unit. I follow a spur road which leads into one of these older units. Douglas fir grow thickly on either side of the spur and around the scarcely recognizable log landing at its end. They stand 30 or 40 feet tall, not terribly old given the rate of regeneration around here. I step off the road onto an old skid trail leading down from the landing. It is carpeted with greenery--raspberry plants, Oregon grape, other species I can't recognize. Little bare soil is visible. This is clearly a country that heals fast. Perhaps this stand is less rich in the species that inhabited the former forest, but others must make use of it today. To me the forest looks overdue for a thinning cut, and indeed, there are blue tags on trees announcing a "partial cut" for the area. The tags look years old and I wonder if the logging has been held up by environmental groups.

If that is the case, this forest will pursue a different path than what the foresters intended. The Douglas fir will become more crowded, individual trees will put on less growth, and eventually they will thin themselves through competition for sunlight. Other tree species, hemlock perhaps or one of the true firs, will become established and gradually take over the stand. It will contribute less to the local forest products economy. Instead there may be other benefits in terms of biodiversity or water holding capacity, I don't know. In this heavily roaded and managed landscape, I guess I would choose the current Forest Service approach and let them manage these stands under the New Forestry principles. Some wood-fiber value would be gained, logging companies would find a little work, and the result, while not a true "native" forest, would be a long way from devastation.

That's my feeling based on a quick, uninformed look. I bring my own background and prejudices to this site. I think back to conditions which prevailed forty years ago, when I drove similar roads on the Willamette, or even earlier in the mid-1960s, when I sat in the back of my parents' Dodge and peered out at these mysterious woods as we drove to our favorite camping spots and fishing holes. In those days you kept to the far outside or inside when rounding a curve, listening for approaching logging trucks, ready to hug the ditch. From a perch such as this we would have heard the low whine of chainsaws in the valley below. The clearcuts would have been fresh, ugly scars, the roads unpaved and sometimes blown out from landslides. We mostly accepted this transformation of the landscape, although by the late 1960s there were voices raised in protest coming from the campus in Eugene, and before long I had joined them.

Times have changed. I was amused to see an orange tag affixed to one of the "leave" trees in this partial-cut unit, which read "Please Protect" and which designated the tree as a genetically-selected seed source. It directed the reader to

report if the tree were "threatened by logging, road building or other activities." The sign looked as if it could have been placed by an environmental group, but no, this is the modern Forest Service. In a roundabout way, the agency has returned to the 1930s and early 1940s, when its main mission was to protect timber stands and carefully thin the better ones. Back then that was considered a holding action to preserve standing sawtimber until industry needed it. Now it's an effort to correct the excesses of the past and find a new way to log which preserves as many functions of the forest as possible. It's but one small example of the new approaches to forestry being tried today. Compared to what I saw as a youth, it's quite an improvement. We'll see if it lasts.

Log Decomposition Site

Leaving the ridgetop site, I backtrack down the 1508 road to a spur designated as 401, which is merely an overgrown skid trail. It leads out onto a mid-level bench on which is situated one of the log decomposition study sites, something for which the HJA is locally famous. In 1985 researcher Mark Harmon obtained more than five hundred logs of various species from a timber sale in the research area, placing them in selected locations and affixing them with various devices designed to measure how the logs decayed over time. Short sections of white PVC pipe protrude from some of the logs, inside which is a cup made of wire mesh, apparently intended to house some sort of measuring apparatus. Fred tells me that the logs' "respiration" (CO_2 release) is being studied, as well as a number of other factors. It's been ongoing for 29 years, with another 171 to go. Judging by the advanced state of decay of some of the logs, there won't be anything to study by then.

Chris Maser writes of how fallen trees go through various stages of decay, leading to their almost unidentifiable blending in with the forest floor. Once again, I'm amazed at how quickly most things fall apart here (except for the durable western red cedar, as Fred points out). It's an almost ideal environment for the microorganisms and small beetles that reduce perfectly good wood to humus. Back in Utah, you could fell a juniper and thirty years later it might be bleached silver in the desert sun, but it would still be more or less intact. Keep it out of the weather, as the ancestral Puebloans did with their roof vigas, and it'd be around a millennium hence for passersby to marvel at.

Perhaps I'm just tired, but I find I can't really get into this study site the way other writers seem to. The forest floor is carpeted with moss, which reaches well up the trunks of the hemlock, fir, and yew on the site. The younger trees struggle to reach ten or twenty feet in height in this dim light. Older logs and the bases of the giant firs and hemlock feel springy and damp. A vine maple slowly waves its leaves, the only evidence of air movement among all this stillness. I hear a deep bark up in the canopy, think at first it's an owl, but a raven flies off. Symbol of death.

One of my goals in coming to the Andrews Forest was to contrast the impression made by old growth forest with that of younger stands, including the young reproduction in clearcuts. Today has offered that contrast, and although I'm immersed in the primeval at this site, I must say I prefer having a horizon in view. This could be the result of spending most of my life in the Intermountain West, where distant mountains and ridges are almost always visible. These deep woods have a restrictive feeling. One is constrained by the tangle of vegetation and the huge fallen trees. Nonetheless, this research plot is a remarkable place, and I unfold a stadium seat against the base of a tall old hemlock, prop my umbrella against it, sit down and watch the rain fall.

Like everything about these Northwest forests, there is a politics of decay. The scene around me is what timber industry executives warned us about back in the early days of the environmental movement. An unmanaged forest will stagnate and rot, they said, eventually becoming a useless pile of debris. Unmerchantable hemlock and punky, disease-ridden Doug fir would clog most sites. Better to clear out the remaining timber and start over. Adjacent to the decomp site is one such clearcut from that era, now grown back to a thick stand of Douglas fir of not quite merchantable size. Similar cutting units are scattered throughout the HJA and form thirty percent of its land area.

Then something major happened. Starting in the mid-'70s, researchers such as Doug Swanston and Fred J. Swanson (what is it with these Swedish names?) documented repeated instances of road failures in the HJA, and traced the causes to multiple sources, not all of which were within the Forest Service's control. Around the same time, interest was growing among biologists in the workings of deep old growth, and soon the red tree vole and *Lobaria pulmonaria* entered the forest lexicon. In the space of less than a decade the Andrews Forest became a key research site for scientists interested in how very old forests actually functioned. This led, in turn, to experiments such as the decomposition study. The results of this and other research, including the biology and habitat requirements of the northern spotted owl, generated headlines and political turmoil throughout the Northwest.

So I am sitting not only in the middle of a curious long-term science experiment, but a germination point for a strange infestation of new ideas about forests and their utility to man. The decomp study is another in a series that have already turned contemporary forestry on its head. This is the context for the dank, sodden, mysterious Middle Earth scene I see before me.

I should look into this research more carefully. Perhaps these scientists are finding out how the ancient Douglas fir-hemlock forest sequesters carbon, a crucial issue in today's political climate. Of equal interest would be the latest findings on the water-holding capacity of such stands -- an issue that led to the creation of the first national forests more than a century ago. There are signs that water supply will become a bigger issue than timber in the West as snowpacks dwindle and shoulderseason warming diminishes critical summertime river flows.

It might be useful, too, to address the aesthetic impact of this very old stand. Why do I not find it as entrancing as many others seem to? Is it the dreary lighting, or just that I'm far from home? The philosopher Sandra Lubarsky believes that beauty is not just in the eye of the beholder, but that it arises out of the "network of social relations between incalculable varieties of beings . . . filled with resident vitality and intrinsic value." Research at the Andrews Forest has disclosed the astonishing variety of life in the old-growth forest and how it all interacts – this alone would qualify as beautiful in Lubarsky's view. Perhaps it is only that the casual observer sees so little of this life. If I spent some time here in the company of biologists, I would probably come to appreciate it more. Still, it's hard to divorce beauty from utility. A woodsman of the 1960s probably would gaze on the young reprod in the clearcut on the 1501 road and find it lovely. As Aldo Leopold wrote, it's a matter of instilling receptivity into the still unlovely human mind. But that statement itself is a terrific value judgment.

I'm getting cold under this hemlock, so I gather my belongings and head for the car. My left foot steps on the end of a blackberry vine, the right foot gets caught underneath, the trap is sprung, and I and my armload of belongings go sprawling into the underbrush. In Utah this would have resulted in abrasions and maybe a sharp knock on a sandstone boulder. Here the soft ground welcomes my fall, and I get up flustered but unhurt. The woods are lovely, dark, and deep, but they still trip the unwary. Or, in my case, the distracted and inattentive.